



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

November 4, 2016

Regulatory Division

Action ID No. SAW-2004-01203

Mr. Philip S. Harris, P.E.
Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Mr. Harris:

Reference the Department of the Army (DA) permit issued on October 3, 2014, to Mr. Philip S. Harris of the North Carolina Department of Transportation, for impacts associated with the project identified as R-0623. The widening project begins along existing NC 24/27 west of SR 113 8 (Dairy Road) and continues east for approximately 1.3 miles, turns south for a 4.5 mile new location section (south of downtown Troy), and then ties back into NC 24/27 for an approximate 0.9 mile widening to just east of the Little River. The proposed project is a partial control of access, four lane, shoulder section facility, with a divided grassed 46-foot median and totals 6.65 miles in length, in Troy, Montgomery County, North Carolina. Coordinates (in decimal degrees) for the site are: 35.334610° North, -79.903305° West. Waters identified within the project corridor include the Little River, Warner Creek, Turkey Creek, their unnamed tributaries, and one unnamed tributary to Rocky Creek. These waters are located in the in the Yadkin-Pee Dee River Basin (Hydrologic Unit Code 03040104).

Impacts authorized by the permit include: 1) The permanent placement of fill material into 4,916 linear feet of jurisdictional stream channel, 1.23 acres of adjacent riparian wetlands, and 1.37 acres of jurisdictional open waters and, 2) the temporary placement of fill material into 700 linear feet of jurisdictional stream channel. Impacts were associated with roadway fill, bank stabilization, pipe placement, excavation, utility line installation, and hand clearing of vegetation for overhead power line clearing. Mitigation was implemented for the unavoidable impacts by payment into the North Carolina Ecosystem Enhancement Program as well as permittee responsible mitigation referenced in the permit special conditions.

Also reference your letter to the Corps, received via electronic mail on May 20, 2016, requesting modification of the permit for additional impacts to R-0623, including the permanent discharge of fill material into 382 linear feet of stream channel, associated with:

- 1) an additional 38 feet of permanent stream impacts for bank stabilization at Site 15;
- 2) an additional 270 linear feet of permanent stream impacts and 28 linear feet of temporary stream impacts at new permit site 25 for the proposed Ramp D;
- 3) an additional 66 linear feet of permanent stream impacts for fill, 7 linear feet of temporary stream impacts and 8 linear feet of permanent impacts associated with bank stabilization at new permit site 26 due to the proposed grade raising on Troy-Candor Road to accommodate the new interchange;

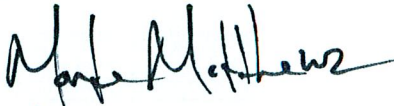
Note that a public notice regarding your modification request, dated May 20, 2016, was published on August 31, 2016, for a 15 day comment period. Following evaluation of the information submitted in your modification request, and comments made during the agency Public Notice period, the U.S. Army Corps of Engineers, Wilmington District has determined that the requested impacts are appropriate and reasonable and not contrary to the public interest. Therefore, the permit is modified to include the requested additional stream impacts. This work must be constructed for Permit Sites 15, 25 and 26 as shown on drawings included in your modification request dated May 20, 2016 (revised 5/13/2016 Permit Drawing Sheets 1, 55, 56, 90, 91 and Permit Drawing Sheets 1-4, added 5/13/2016) copy attached. In addition, the following special condition regarding additional compensatory mitigation has been incorporated:

y) In order to compensate for impacts associated with this permit modification, additional mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization.

All other conditions of the permit, including the permit expiration date of December 31, 2019, remain in effect as written. The R-0623 project now totals permanent impacts to 5,298 linear feet of jurisdictional stream channel, 1.23 acres of adjacent riparian wetlands, and 1.37 acres of jurisdictional open waters and, 2) the temporary placement of

fill material into 735 linear feet of jurisdictional stream channel for road construction/improvement activities. Should you have questions, contact Mr. Andrew Williams, Raleigh Regulatory Field Office at telephone (919) 554-4884, Extension 26 or Andrew.E.Williams2@usace.army.mil.

Sincerely,


Kevin P. Landers
Colonel, U.S. Army
District Commander

Attachments

Copy Furnished with Attachments

Mr. Rob Ridings
North Carolina Department of Environmental Quality
1617 Mail Service Center
Raleigh, North Carolina 27699

Mr. Art King
DEO Highway Division 8
902 North Sandhills Blvd.
Aberdeen, North Carolina 28315

Mr. Chris Rivenbark
North Carolina Department of Transportation
Division of Highways
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Copy Furnished without Attachments

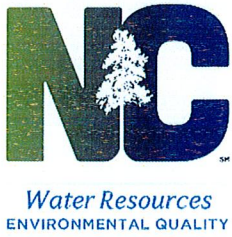
Mr. Pete Benjamin
U.S. Fish and Wildlife Services
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 28516

Ms. Cynthia Van Der Wiele
U.S. Environmental Protection Agency
Region 4 NEPA Program Office
C/o USEPA-RTP
109 T.W. Alexander Drive
Mail Code: E143-08
Research Triangle Park, North Carolina 27709

Ms. Renee Gledhill-Early
North Carolina Division of Cultural Resources
NC State Historical Preservation Office
4617 Mail Service Center
Raleigh, North Carolina 27699-4617

Ms. Amy Chapman
Transportation Permitting Unit
Division of Water Resources
North Carolina Department of
Environment and Natural Resources
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Mr. Travis Wilson
North Carolina Wildlife Resources Commission
1142 I-85 Service Road
Creedmoor, North Carolina 27522



PAT MCCRORY

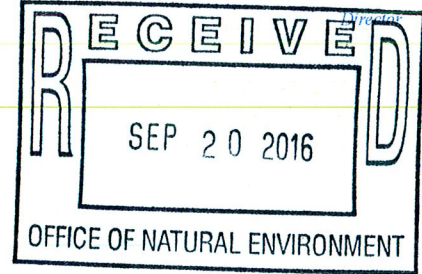
Governor

DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

September 16, 2016



Mr. Philip S. Harris, III, P.E., CPM
Natural Environment Section Head
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598


Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for the proposed NC 24/27 Troy Bypass from west of SR 1138 (Dairy Road) to just east of Little River in Montgomery County, Division 8; WBS Element 34352.1.1, TIP Project No. R-0623.
NCDWR Project No. 20140285 v.3

Dear Mr. Harris:

Attached hereto is a modification of Certification No. 03992 issued to The North Carolina Department of Transportation (NCDOT) dated May 23, 2014 and subsequent modifications dated August 14, 2014.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,


S. Jay Zimmerman, Director
Division of Water Resources

Attachments

Electronic copy only distribution:

Andrew Williams, US Army Corps of Engineers, Raleigh Field Office
Art King, Division 8, Environmental Officer
Rodger Rochelle, NC Department of Transportation
Carla Dagnino, NC Department of Transportation
Dr. Cynthia Van Der Wiele, US Environmental Protection Agency
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
File Copy

**Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act
with
ADDITIONAL CONDITIONS**

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact an additional 417 linear feet of jurisdictional streams in Guilford County. The project shall be constructed pursuant to the application dated received May 20, 2016. The authorized impacts are as described below:

Table 1. Stream Impacts in the Yadkin-Pee Dee River Basin

Site Number	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
Original approved impacts at Site 15	--	--	383	31	414	383
New additional impacts at Site 15	--	--	38	--	38	38
Total Impacts with this approval at Site 15	--	--	421	31	452	421
25	270	28	--	--	298	--
26	--	--	74	7	81	--
Total Original Impacts	1,496	172	3,420	528	5,616	3,175
Total Additional Impacts	270	28	112	7	417	38
Total Project Impacts	1,766	200	3,532	535	6,033	3,213

Total Stream Impact for Project: 6,033 linear feet.

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin-Pee Dee River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received May 20, 2016. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Certification:

Project Specific Conditions

1. This modification is applicable only to the additional proposed activities. All of the authorized activities and conditions of certification associated with the original Water Quality Certification dated May 23, 2014 and subsequent modifications dated August 14, 2014 still apply except where superseded by this certification.
2. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed. [15A NCAC 02H.0506(b)(2)]

3. Compensatory mitigation for 3,213 linear feet of impact to streams at a 1:1 ratio is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Division of Mitigation Service (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. The DMS has indicated in a letter dated May 13, 2016 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the DMS Mitigation Banking Instrument signed June 14, 2016.

General Conditions

1. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]
2. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
3. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
4. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
5. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
6. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
7. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
8. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
9. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
11. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
12. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]

14. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
16. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
17. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
19. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02B.0506(b)(2)]
20. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
21. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
22. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]
23. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.
The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Sam M. Hayes, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This the 16th day of September 2016

DIVISION OF WATER RESOURCES



ba S. Jay Zimmerman, Director

WQC No. 3992



Water Resources
ENVIRONMENTAL QUALITY

PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

Director

NCDWR Project No.: _____

County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

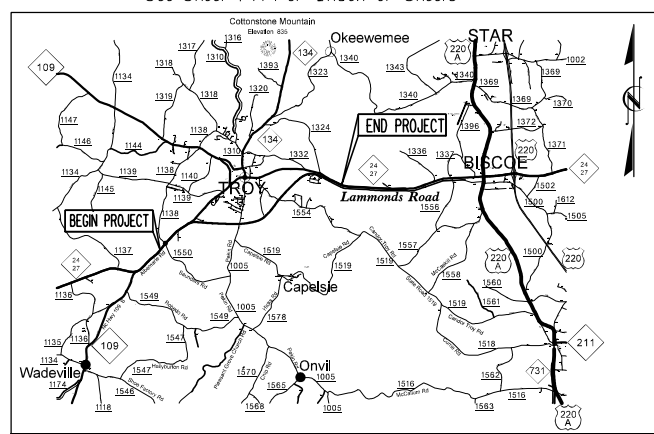
Signature _____ Registration No. _____ Date _____

09/08/16

TIP PROJECT: R-0623

CONTRACT:

See Sheet 1-A For Index of Sheets



VICINITY MAP

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF TROY

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

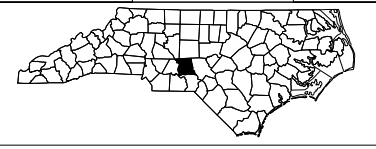
MONTGOMERY COUNTY

LOCATION: NC 2427 TROY BYPASS FROM WEST OF SR 1138
(DAIRY ROAD) TO JUST EAST OF LITTLE RIVER

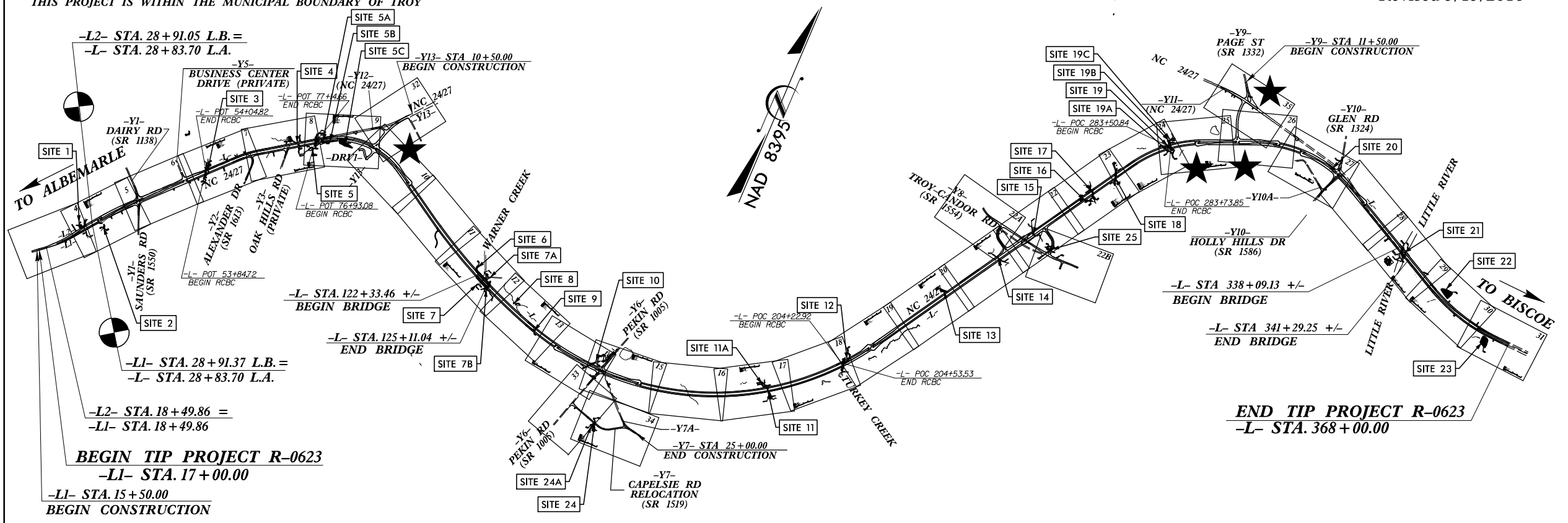
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES
SIGNALS AND SIGNING

WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-0623	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34352.1.1	STP-24(6)	PE	



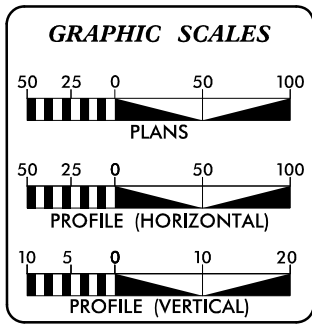
Permit Drawing
Sheet 1 of 91
Revised 5/13/2016



★ TRAFFIC SIGNAL

NOTE: THIS PROJECT IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2014 = 6610 - 12,641
ADT 2040 = 9300 - 18,200
DHV = 10 %
D = 55 %
T = 17 % *
V = 60 MPH
* TTST = 12% DUAL 5%

FUNCTIONAL CLASSIFICATION
RURAL ARTERIAL
REGIONAL TIER PROJECT

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-0623 = 6.518 MILES
LENGTH STRUCTURES TIP PROJECT R-0623 = 0.131 MILES
TOTAL LENGTH OF TIP PROJECT R-0623 = 6.649 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 30, 2013

LETTING DATE:
NOVEMBER 18, 2014

G. E. BREW, P.E.
PROJECT ENGINEER

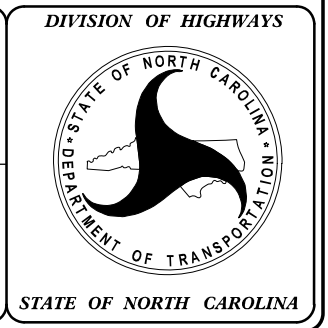
I.T. YOUNIS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

SIGNATURE: _____ P.E.

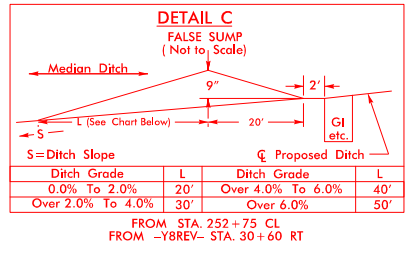


SYSTEM: \$\$\$\$\$\$
DATE: 09/08/16
DRAWN: \$\$\$\$\$\$
CHECKED: \$\$\$\$\$\$
APPROVED: \$\$\$\$\$\$

8/17/99
REVISIONS

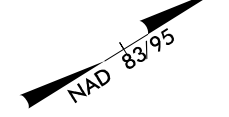
MATCH LINE -Y8REV- STA 22+75
SEE SHEET 22A

FOR DRAINAGE DITCH DETAILS
SEE SHEETS 2D-1 THRU 2D-3



FOR PROFILE OF LINE -L- SEE SHEETS 45
AND 46
FOR PROFILE OF LINE -Y8REV- SEE SHEET 57
FOR PROFILE OF LINE -RBD- SEE SHEET 58

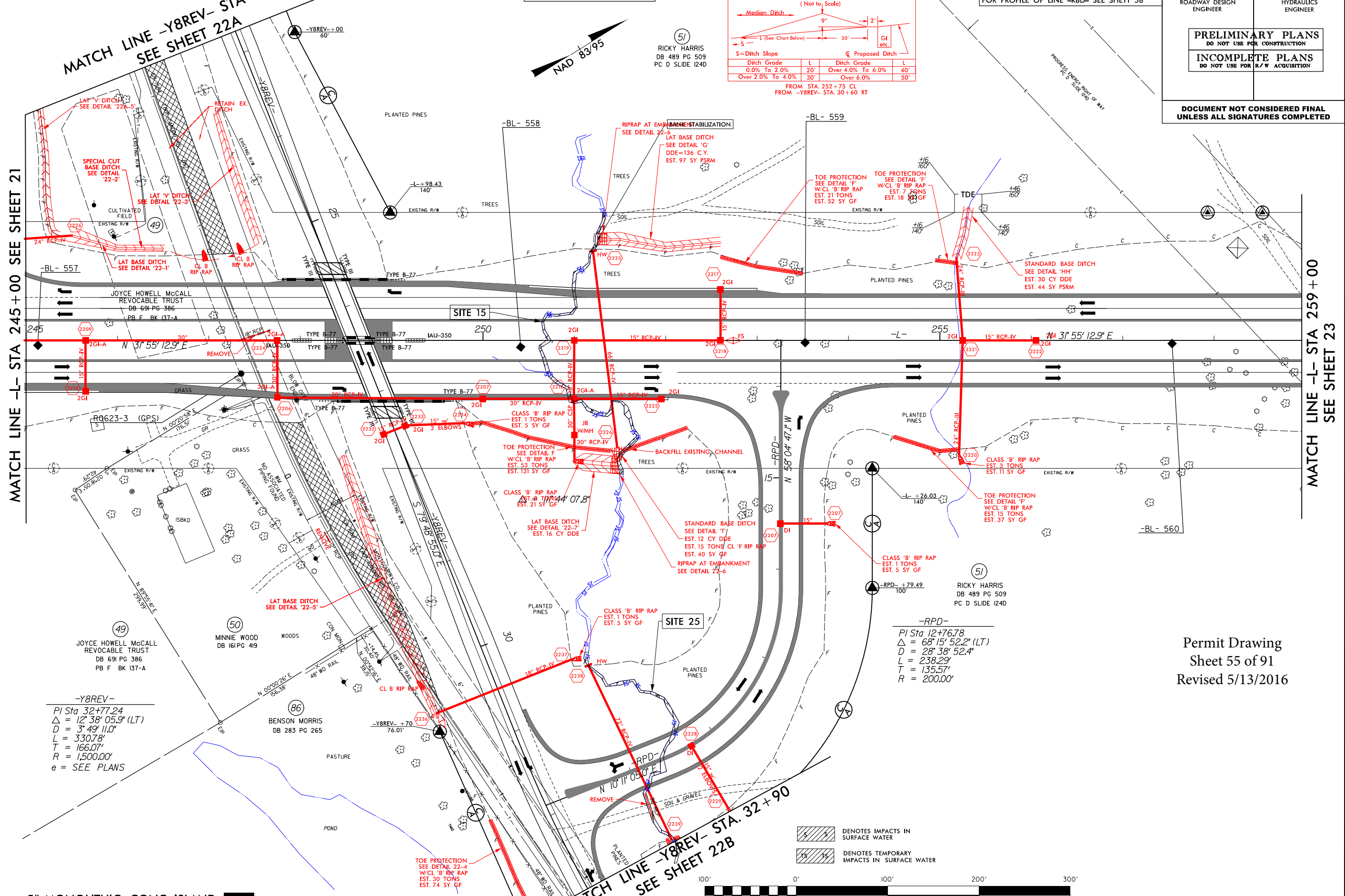
PROJECT REFERENCE NO. R-0623	SHEET NO. 22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



(5)
RICKY HARRIS
DB 489 PG 509
PC D SLIDE 124D

MATCH LINE -L- STA 245+00 SEE SHEET 21

MATCH LINE -L- STA 259+00
SEE SHEET 23



-Y8REV-
PI Sta 32+77.24
 $\Delta = 12^\circ 38' 05.9''$ (LT)
D = 3' 49' 11.0"
L = 330.78'
T = 166.07'
R = 1,500.00'
e = SEE PLANS

(50)
MINNIE WOOD
DB 161 PG 419

-Y8REV- +70
76.01'

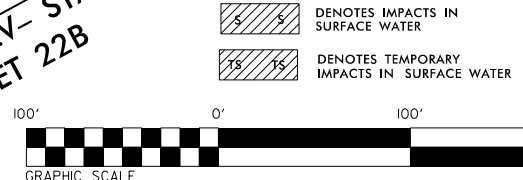
(86)
BENSON MORRIS
DB 283 PG 265

(5)
RICKY HARRIS
DB 489 PG 509
PC D SLIDE 124D

-RPD-
PI Sta 12+76.78
 $\Delta = 68^\circ 15' 52.2''$ (LT)
D = 28' 38' 52.4"
L = 238.29'
T = 135.57'
R = 200.00'

Permit Drawing
Sheet 55 of 91
Revised 5/13/2016

5" MONOLITHIC CONC. ISLAND

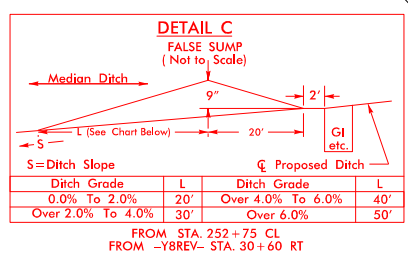


5/15 DENOTES IMPACTS IN SURFACE WATER
15/15 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8/17/99

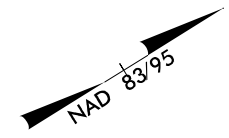
MATCH LINE -Y8REV- STA 22+75
SEE SHEET 22A

FOR DRAINAGE DITCH DETAILS
SEE SHEETS 2D-1 THRU 2D-3



FOR PROFILE OF LINE -L- SEE SHEETS 45 AND 46
FOR PROFILE OF LINE -Y8REV- SEE SHEET 57
FOR PROFILE OF LINE -RBD- SEE SHEET 58

PROJECT REFERENCE NO. R-0623	SHEET NO. 22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



(5)
RICKY HARRIS
DB 489 PG 509
PC D SLIDE I240

MATCH LINE -L- STA 245+00 SEE SHEET 21

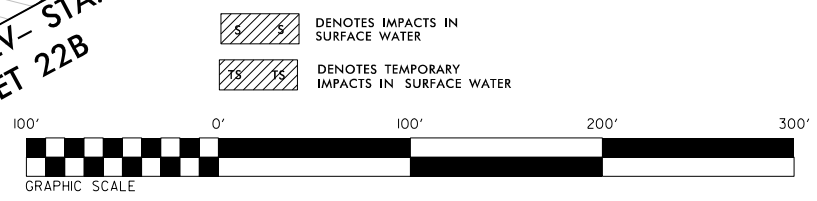
MATCH LINE -L- STA 259+00
SEE SHEET 23

-Y8REV-
 PI Sta 32+77.24
 $\Delta = 12^\circ 38' 05.9''$ (LT)
 $D = 3^\circ 49' 11.0''$
 $L = 330.78'$
 $T = 166.07'$
 $R = 1,500.00'$
 e = SEE PLANS

-RPD-
 PI Sta 12+76.78
 $\Delta = 68^\circ 15' 52.2''$ (LT)
 $D = 28^\circ 38' 52.4''$
 $L = 238.29'$
 $T = 135.57'$
 $R = 200.00'$

5" MONOLITHIC CONC. ISLAND

Permit Drawing
Sheet 56 of 91
Revised 5/13/2016

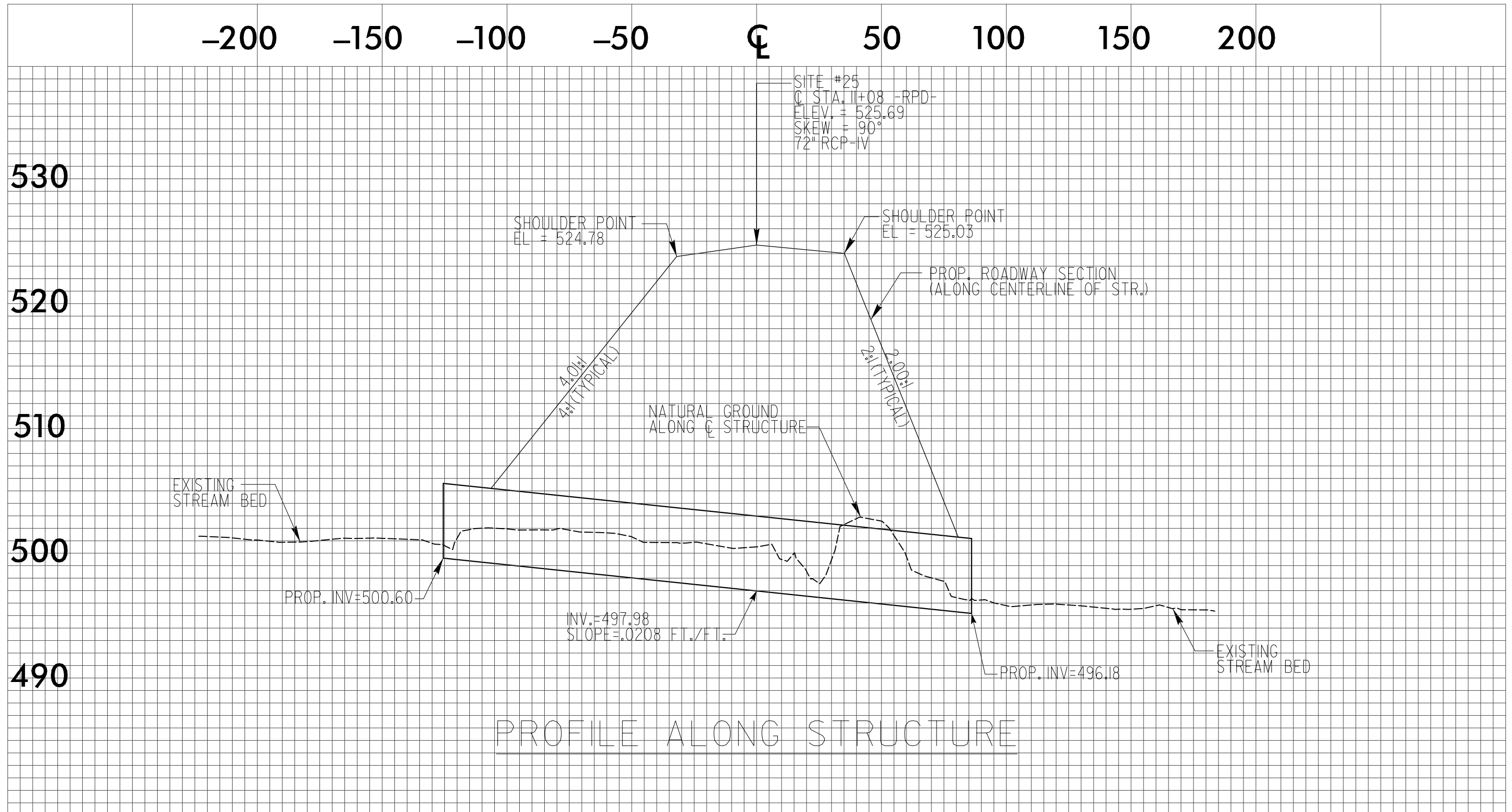


REVISIONS

8/17/99

SITE 25

Permit Drawing
Sheet 1 of 4
Added 5/13/2016



8/17/99

REVISIONS

FOR DRAINAGE DITCH DETAILS SEE SHEETS 2D-1 THRU 2D-3

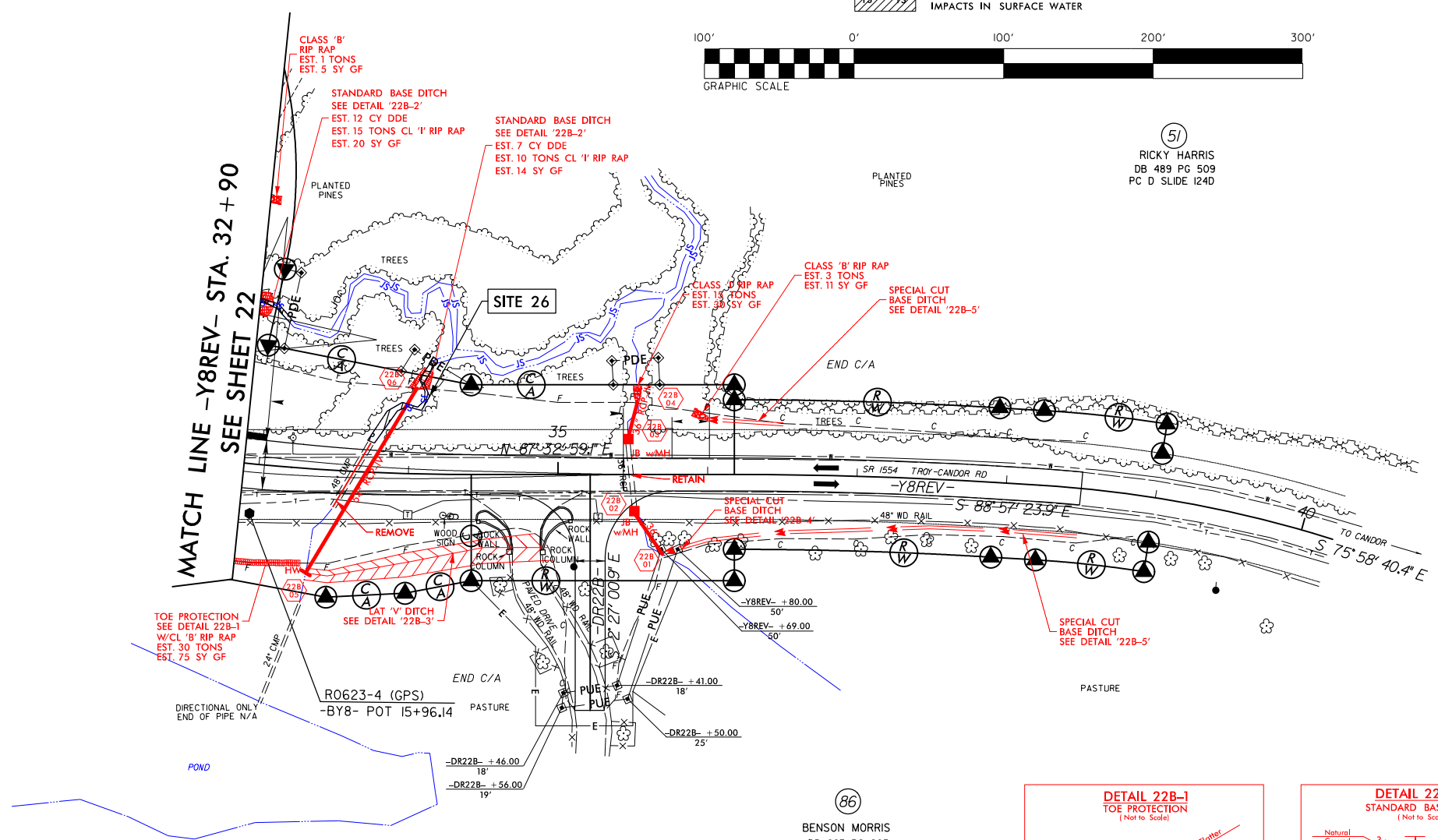
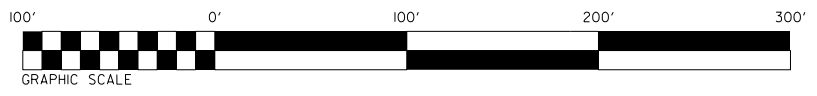
PROJECT REFERENCE NO. R-0623	SHEET NO. 22B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL	
FOR PROFILE OF -Y8REV- SEE SHEET 57	
FOR PROFILE OF -DR22B- SEE SHEET 58	

5" MONOLITHIC CONC. ISLAND



DENOTES IMPACTS IN SURFACE WATER

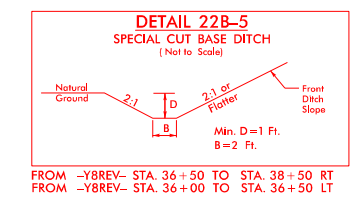
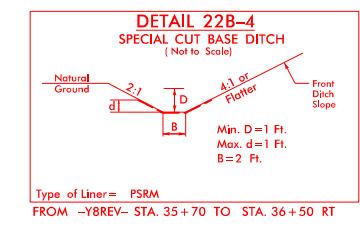
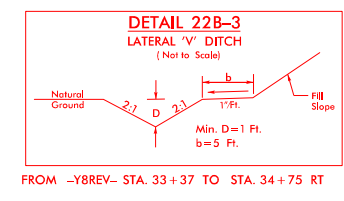
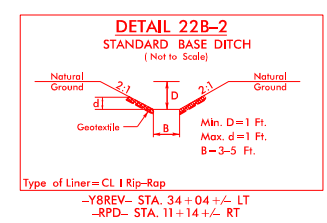
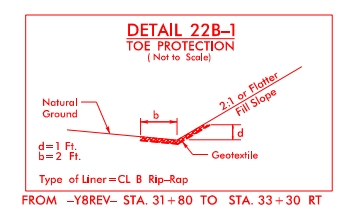
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



(5)
RICKY HARRIS
DB 489 PG 509
PC D SLIDE I24D

(86)
BENSON MORRIS
DB 283 PG 265

-Y8REV-		
PI Sta 32+77.24	PI Sta 37+05.21	PI Sta 39+15.44
$\Delta = 12' 38' 05.9''$ (LT)	$\Delta = 3' 29' 37.0''$ (RT)	$\Delta = 12' 58' 43.5''$ (RT)
D = 3' 49' 11.0"	D = 2' 00' 00.0"	D = 7' 00' 00.0"
L = 330.78'	L = 174.68'	L = 185.41'
T = 166.07'	T = 87.37'	T = 93.10'
R = 1,500.00'	R = 2,864.79'	R = 818.51'
e = SEE PLANS	e = SEE PLANS	e = EXISTING



Permit Drawing
Sheet 2 of 4
Added 5/13/2016

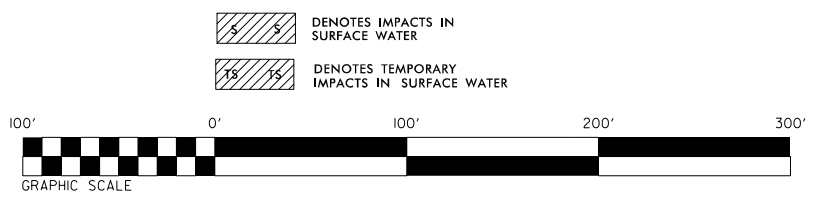
FOR DRAINAGE DITCH DETAILS SEE SHEETS 2D-1 THRU 2D-3

PROJECT REFERENCE NO. R-0623	SHEET NO. 22B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
FOR PROFILE OF -Y8REV- SEE SHEET 57	
FOR PROFILE OF -DR22B- SEE SHEET 58	

Permit Drawing
Sheet 3 of 4
Added 5/13/2016

5" MONOLITHIC CONC. ISLAND

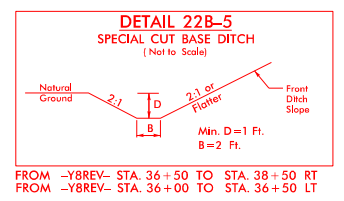
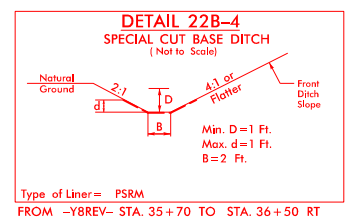
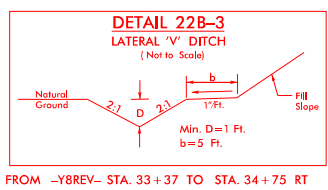
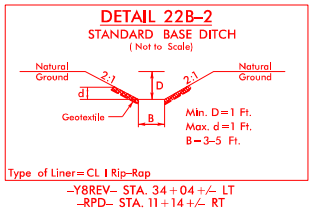
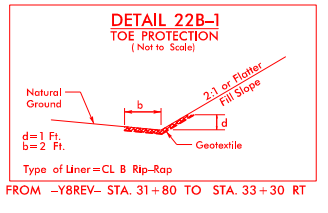
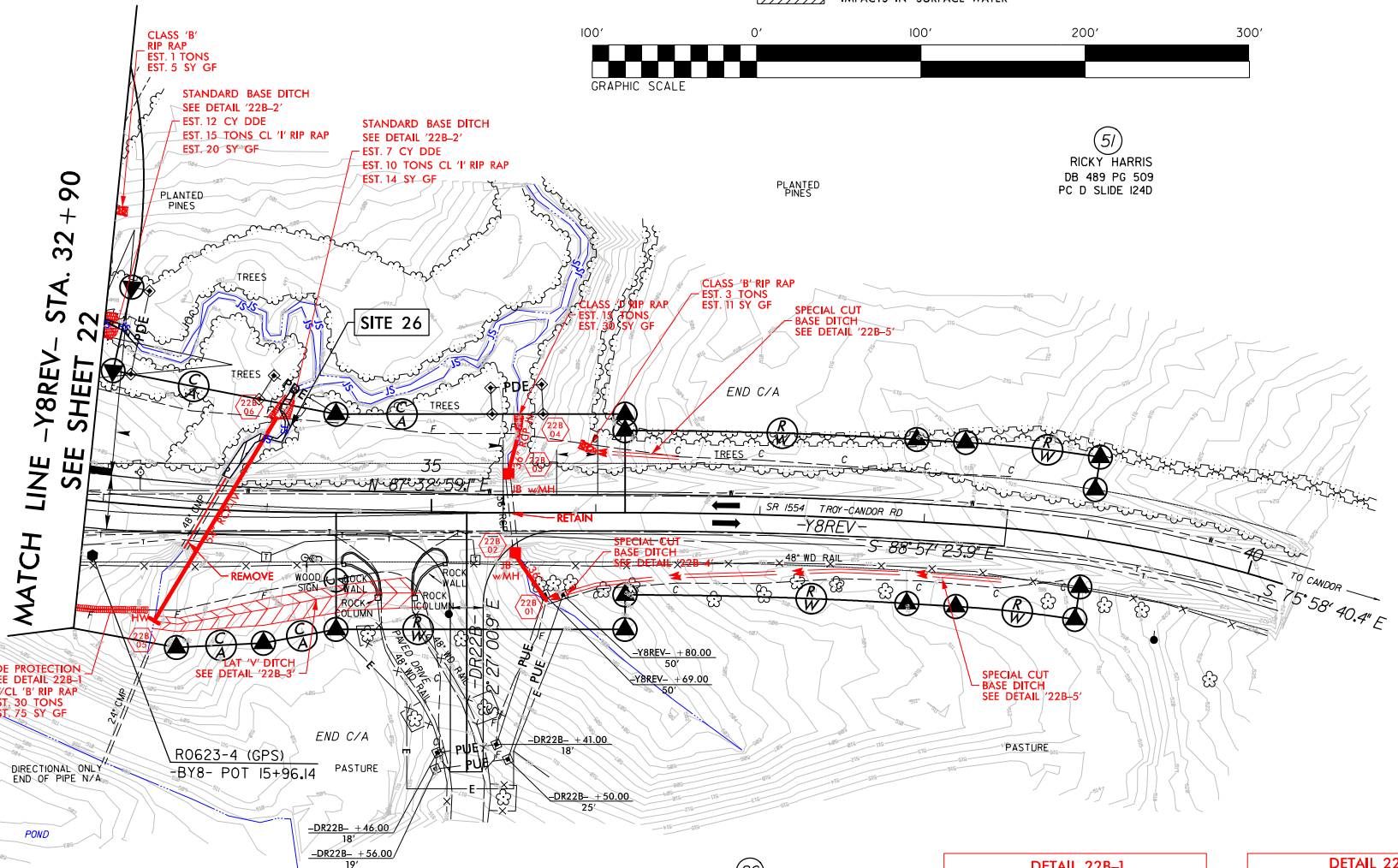
NAD 83/95



DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

51
RICKY HARRIS
DB 489 PG 509
PC D SLIDE 124D

86
BENSON MORRIS
DB 283 PG 265



-Y8REV-

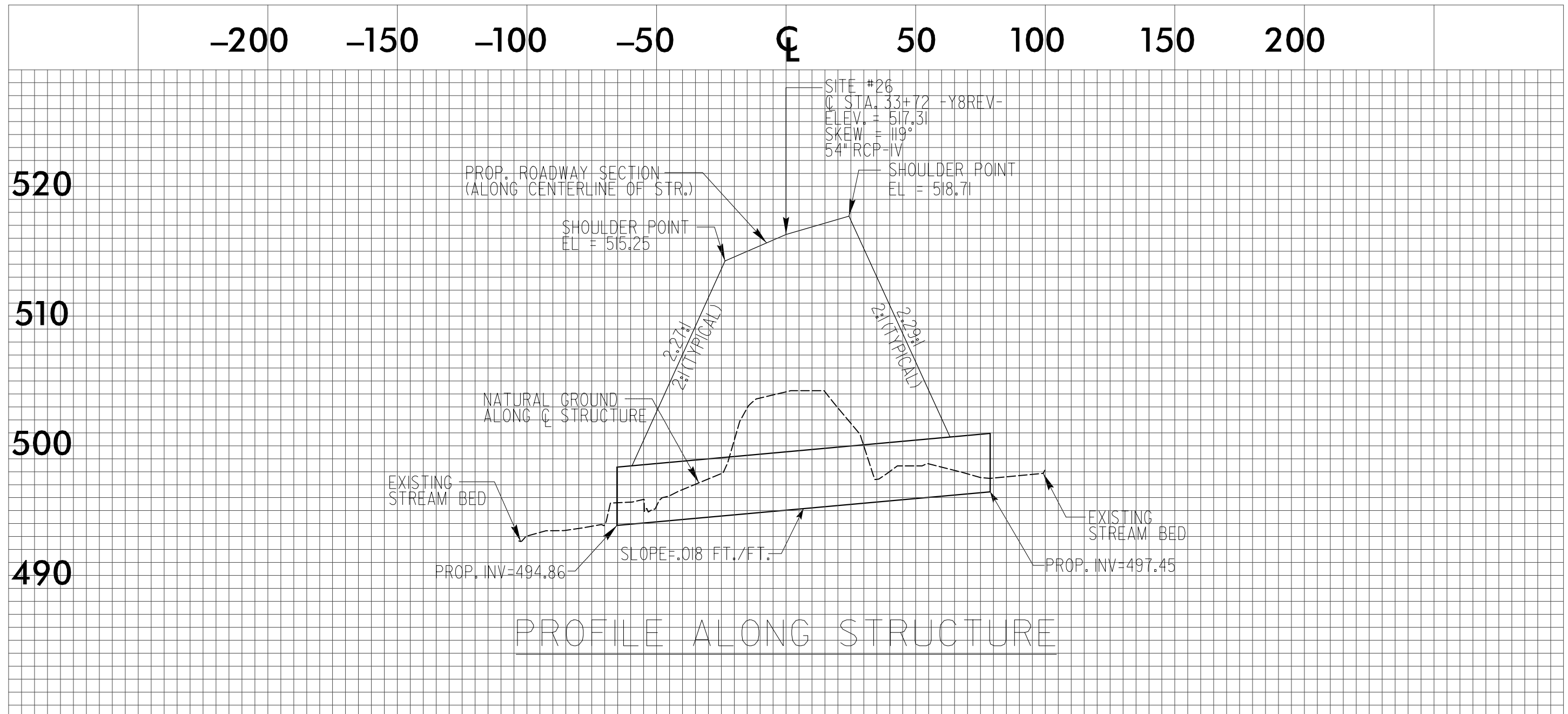
PI Sta 32+77.24	PI Sta 37+05.21	PI Sta 39+15.44
$\Delta = 12' 38' 05.9''$ (LT)	$\Delta = 3' 29' 37.0''$ (RT)	$\Delta = 12' 58' 43.5''$ (RT)
D = 3' 49' 11.0"	D = 2' 00' 00.0"	D = 7' 00' 00.0"
L = 330.78'	L = 174.68'	L = 185.41'
T = 166.07'	T = 87.37'	T = 93.10'
R = 1,500.00'	R = 2,864.79'	R = 818.51'
e = SEE PLANS	e = SEE PLANS	e = EXISTING

REVISIONS

8/17/99

SITE 26

Permit Drawing
Sheet 4 of 4
Added 5/13/2016



WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	L2 26+14 to 28+48	Roadway Fill	0.13				0.02	0.01	<0.01	136	16	
		Bank Stabilization							<0.01	11		
2	L 30+39 to 30+81 Rt	15"			<0.01		<0.01	<0.01	<0.01	39	34	
3	L 53+20 to 55+42	2@8'x6' RCBC			0.02		0.02	0.03	<0.01	294	24	
4	L 70+83 to 73+70	60" RCP IV	0.02				0.06	0.02	<0.01	271	73	
5	L 75+30 to 84+50	2@10'x7' RCBC						0.05	<0.01	295	17	
		Bank Stabilization							0.01	62		
5A		Roadway Fill	0.04					0.02		500		
5B		Roadway Fill	0.01									
5C		Pond	0.02		0.02			0.34				
6	L 120+95 to 121+90 Lt	Roadway Fill	0.08									
7	L 122+87 to 123+78	Bank Stabilization							<0.01	43		
7A	L 124+42 Lt	Bank Stabilization							<0.01	16		
7B	L 124+91 to 128+04	Roadway Fill	0.16					0.02	<0.01	355	72	
8	L 131+38 to 132+10 Lt	Roadway Fill	<0.01				<0.01		<0.01		10	
9	L 137+97 to 138+55	Roadway Fill	0.03									
10	L 150+48 to Y6 11+00 Rt	Roadway Fill	0.14		<0.01		0.13					
11	L 187+35 to 188+66	1@10'x6' RCBC						0.03	0.01	319	56	
		Bank Stabilization							<0.01	47		
11A	L 187+80 to 187+98	Roadway Fill						0.01	0.01	105	21	
		Bank Stabilization							<0.01	6		
12	L 203+49 to 206+55	2@12'x8' RCBC						0.10	0.01	499	38	
13	L 228+85 to 229+98	Roadway Fill	0.05				0.04					
14	L 241+68 to 242+88	54" RCP IV						0.02	0.01	229	60	
		Bank Stabilization						<0.01		12		
15	L 250+61 to 251+71	66" RCP-IV						0.02	<0.01	370	31	
		Bank Stabilization							<0.01	51		
TOTALS:			0.68		0.04		0.27	0.68	0.08	3660	452	

Stream Bank Stabilization Sites 1-15 = 248 feet

Permit Drawing
Sheet 90 of 91
Revised 5/13/2016

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MONTGOMERY COUNTY
WBS - 34352.1.1 (R-0623)

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
16	L 262+36 to 264+32	30" RCP-III	0.14				0.01					
17	L 264+70 to 265+86	54" RCP-III	0.10		0.01		0.03	0.01	<0.01	280	57	
		Bank Stabilization						<0.01	21			
18	L269+62 to 272+04	42" RCP-III	0.11		<0.01		0.02	0.01	<0.01	297	44	
		Bank Stabilization						<0.01	22			
19	L 282+75 to 283+36	Roadway Fill	0.04									
19A	L 282+68 to 283+49	Roadway Fill	0.01				0.02					
19B	L 283+33 to 283+47	2@11'x7' RCBC							<0.01		17	
19C	L 283+47 to 284+20	2@11'x7' RCBC						0.05		340		
		Bank Stabilization						<0.01	9			
20	L 316+99 to 317+88	Roadway Fill	0.05									
21	L 338+46 to 340+55	Bank Stabilization							0.01	75		
		Causeways							0.08		112	
22	L 350+09 to 352+49 Lt	Pond						0.55				
23	L 362+75 to 364+14 Rt	Pond						0.48				
24	Y7 15+26 to 15+49 Lt	Roadway Fill	<0.01				<0.01					
24A	Y7 15+63 to 16+31	48" RCP	0.04				0.02	0.01	<0.01	240	18	
		Bank Stabilization						<0.01	10			
25	RPD 11+14 to 11+73											
		72" RCP-IV						0.02	<0.01	270	28	
26	Y8REV 33+36 to 34+13	54" RCP-IV						0.01	<0.01	66	7	
		Bank Stabilization						<0.01	8			
SHEET TOTALS (SITES 16-24A):			0.49		0.02		0.11	1.14	0.10	1638	283	
SHEET TOTALS (SITES 1-15):			0.68		0.04		0.27	0.68	0.08	3660	452	
TOTALS:			1.17		0.06		0.39	1.82	0.17	5298	735	

Stream Bank Stabilization Sites 16-26 = 145 feet

Permit Drawing
Sheet 91 of 91
Revised 5/13/2016

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MONTGOMERY COUNTY
WBS - 34352.1.1 (R-0623)